

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT

Education Subventions

28EA – Reprovisioning of St. Francis' Canossian School at St. Francis Street, Wan Chai

Members are invited to recommend to Finance Committee the upgrading of **28EA** to Category A at an estimated cost of \$98.5 million in money-of-the-day prices for reprovisioning St. Francis' Canossian School at St. Francis Street, Wan Chai.

PROBLEM

We need to reprovision St. Francis' Canossian School (the School) in Wan Chai to facilitate its conversion into whole-day operation and to improve the teaching and learning environment.

PROPOSAL

2. The Secretary for Education and Manpower, on the advice of the Director of Architectural Services (D Arch S), proposes to upgrade **28EA** to Category A at an estimated cost of \$98.5 million in money-of-the-day (MOD) prices for reprovisioning the School.

/PROJECT

PROJECT SCOPE AND NATURE

3. The project scope comprises the renovation of two existing interconnected premises owned by the school sponsoring body at St. Francis Street (two premises)¹ and the construction of a new extension block for reprovisioning the School now operating in the vicinity, with the following facilities –

- (a) 24 classrooms;
- (b) six special rooms including a music room, a visual arts room, a general studies room, a computer-assisted learning room, a multi-purpose room and a language room;
- (c) four small group teaching rooms;
- (d) a guidance activity room;
- (e) a staff room and a staff common room;
- (f) a library;
- (g) a conference room;
- (h) two interview rooms;
- (i) a student activity centre;
- (j) two multi-purpose areas;
- (k) an assembly hall (which can also be used for a wide range of physical activities such as badminton, gymnastics and table tennis);
- (l) a rooftop basketball court;
- (m) a 60-metre running track;

/(n)

¹ The two premises belong to the school sponsoring body. One of the two premises was once leased to another school sponsoring body for the operation of Caritas Magdalene School. The lease expired in August 2005 and Caritas Magdalene School has been relocated. The other premises has also been leased to that school sponsoring body for the operation of Caritas Lok Kan School and the lease term will end in August 2007. Caritas Lok Kan School will be relocated then.

- (n) a green corner²; and
- (o) other ancillary accommodation, including two lifts and relevant facilities for the handicapped.

————
————
The project will meet the planning target of providing two square metres (m²) of open space per student. A site plan is at Enclosure 1 and views of the proposed school (artist's impression) are at Enclosure 2. The project will be implemented in two phases. Phase one comprises the renovation of one of the two premises. Phase two comprises the renovation of the other existing premises, which will only be available when Caritas Lok Kan School currently operating in the premises is relocated in August 2007, and the construction of the new extension block. The school sponsor plans to start phase one of the project in February 2007 for completion in August 2007, and start phase two of the project in September 2007 for completion in May 2009.

JUSTIFICATION

4. It is the Government's policy to implement whole-day primary schooling for virtually all primary school students by the 2007/08 school year. In the 2006/07 school year, about 90% of primary school places are in whole-day mode. The School is a 12-classroom bi-sessional primary school with an enrolment rate of 100% in the 2006/07 school year. It will need to operate from a 24-classroom premises if it is to turn whole-day under the same class structure.

5. Separately, the existing premises of the School, built in 1960s on a small site area of 2 600 m², falls short of the current standard. Certain essential facilities for effective teaching and learning, such as multi-purpose room, library and assembly hall, are lacking. The lack of open space provision also falls short of the latest planning standard. The School was not included under the School Improvement Programme³ since improvement works were not feasible due to site constraints. Coupled with the need for the School to switch to whole-day operation, reprovisioning is considered to be the most cost-effective way to provide a quality teaching and learning environment for the teachers and students of the School. It is also more cost-effective to make use of the two premises owned by the school sponsor at St. Francis Street for reprovisioning the School.

/6.

² A green corner is a designated area inside the campus to enable students to develop an interest in horticulture and the natural environment. The green corner may include a greenhouse, a weather station and planting beds.

³ The School Improvement Programme involves some 740 existing schools to provide additional space and upgrade facilities to support teaching and learning.

6. Since the project involves the reprovisioning of an existing school with the number of operating classes unchanged, it will not affect the overall supply of primary school places as well as the supply in the Wan Chai District.

FINANCIAL IMPLICATIONS

7. The school sponsor estimates the capital cost of the project to be \$98.5 million in MOD prices (see paragraph 8 below). D Arch S has examined and endorsed the cost estimate, made up as follows –

	\$ million	
(a) Demolition	2.7	
(b) Slope improvement	0.8	
(c) Piling	5.1	
(d) Building	46.9	
(e) Building services	16.2	
(f) Drainage	1.8	
(g) External works	7.5	
(h) Consultants' fees for –	3.2	
(i) Contract administration	1.6	
(ii) Site supervision	1.2	
(iii) Out-of-pocket expenses	0.4	
(i) Furniture and equipment (F&E) ⁴	3.2	
(j) Contingencies	8.7	
Sub-total	96.1	(in Sept 06 prices)

/\$ million

⁴ Based on the standard furniture and equipment reference list prepared by the Education and Manpower Bureau for a new 24-classroom primary school adopting the standard schedule of accommodation.

\$ million

(k) Provisions for price adjustment	2.4	
Total	<u>98.5</u>	(in MOD prices)

The school sponsor proposes to engage consultants to undertake contract administration and site supervision of the project. A detailed breakdown of the estimate for consultants' fees by man-months is at Enclosure 3. The construction floor area (CFA) of the new school under **28EA** is about 10 057 m². The estimated construction unit cost for the new extension block and renovation works, represented by the building and building services costs, is \$6,274 per m² of CFA in September 2006 prices. D Arch S considers this comparable to similar school projects built by the Government. A comparison of the reference cost for a 24-classroom primary school based on an uncomplicated site with no unusual environmental or geotechnical constraints with the estimated cost of **28EA** is at Enclosure 4.

8. Subject to approval, the school sponsor will phase the expenditure as follows –

Year	\$ million (Sept 2006)	Price adjustment factor	\$ million (MOD)
2007 – 08	32.3	1.01250	32.7
2008 – 09	48.5	1.02769	49.8
2009 – 10	13.5	1.04310	14.1
2010 – 11	<u>1.8</u>	1.05875	<u>1.9</u>
	<u>96.1</u>		<u>98.5</u>

9. We have derived the MOD estimate on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output for the period 2007 to 2011. The school sponsor will deliver the two phases of the project through two separate fixed-price lump-sum contracts because the school sponsor can clearly define the scope of works in advance. The contracts will not provide for price adjustment because the contract period will not exceed 21 months each.

10. The cost of F&E, estimated to be \$3.2 million, will be borne by the Government. This is in line with the existing policy.

11. The annual recurrent expenditure of the School was \$19.0 million in the 2005/06 school year. Upon reprovisioning of the School, the annual recurrent expenditure is estimated to be \$20.2 million, with the difference being largely attributable to the increase in price level.

PUBLIC CONSULTATION

12. We consulted the Wan Chai District Council on **28EA** on 21 November 2006. Members of the District Council supported the project.

13. We consulted the Legislative Council Panel on Education on 24 October 2005 on our review of projects under planning in the School Building Programme. The Panel supported our recommendation to proceed with six projects for redevelopment and reprovisioning purposes, including **28EA**.

ENVIRONMENTAL IMPLICATIONS

14. The school sponsor completed the Preliminary Environmental Review (PER) for **28EA** in October 2006. According to the PER, the predicted road traffic noise levels at all noise sensitive rooms would not exceed the Hong Kong Planning Standards and Guidelines criterion of 65dB(A). Noise mitigation measures in the form of insulated windows and air-conditioning would not be required for the School.

15. During construction, the school sponsor will control noise, dust and site run-off nuisances to within established standard and guidelines through the implementation of mitigation measures in the relevant contracts. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, frequent cleaning and watering of the sites, and the provision of wheel-washing facilities.

16. At the planning and design stages, the school sponsor has considered measures to reduce the generation of construction and demolition (C&D) materials. The school sponsor will require its contractor to reuse inert C&D materials (e.g. excavated soil) on site or in other suitable construction sites

/as

as far as possible, in order to minimize the disposal of C&D materials to public fill reception facilities⁵. In addition, the school sponsor will encourage its contractor to maximize the use of recycled or recyclable C&D materials, such as metal site hoardings and signboards, as well as the use of non-timber formwork to further minimize the generation of construction waste.

17. The school sponsor will require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. It will ensure that the day-to-day operations on site comply with the approved WMP. It will control the disposal of public fill, C&D materials and C&D waste to public fill reception facilities, sorting facilities⁵ and landfills respectively through a trip-ticket system. It will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities. It will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

18. The school sponsor estimates that the project will generate about 6 500 tonnes of C&D materials. Of these, it will reuse about 800 tonnes (12.3%) on site, deliver 4 300 tonnes (66.2%) to public fill reception facilities for subsequent reuse, and 500 tonnes (7.7%) to sorting facilities in order to retrieve the inert portion for reuse as public fill. In addition, it will dispose of 900 tonnes (13.8%) at landfills. The total cost for accommodating C&D materials at public fill reception facilities and landfill sites, together with the cost for handling the materials at sorting facilities is estimated to be \$278,600 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities, \$100/tonne at sorting facilities and \$125/tonne⁶ at landfills.)

LAND ACQUISITION

19. The project does not require any land acquisition.

/BACKGROUND

⁵ Sorting facilities and public fill reception facilities are specified in Schedule 3 and Schedule 4 respectively of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of public fill in public fill reception facilities requires a license issued by the Director of Civil Engineering and Development.

⁶ This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m³), nor the cost to provide new landfills (which is likely to be more expensive), when the existing ones are filled.

BACKGROUND INFORMATION

20. We upgraded **28EA** to Category B in October 2005. The school sponsor engaged consultants to carry out the detailed design and tender documentation in April 2006, topographical survey in August 2006 and ground investigation work in September 2006. We will charge the Government's contribution of \$3.6 million to block allocation **Subhead 8100QX** "Alterations, additions, repairs and improvements to education subvented buildings". The consultants have carried out these services except for the preparation of tender documents which are being finalised.

21. Part of the premises to which the School will be reprovisioned under **28EA** has been leased to a school sponsoring body for the operation of Caritas Lok Kan School. The lease term will end in August 2007. On 24 June 2005, the Finance Committee approved the upgrading of a Public Works Programme project, 101ET, at an estimated cost of \$73.9 million for the construction of a special school in Tin Shui Wai to reprovision Caritas Lok Kan School. The construction works was commenced in December 2005 for completion in July 2007.

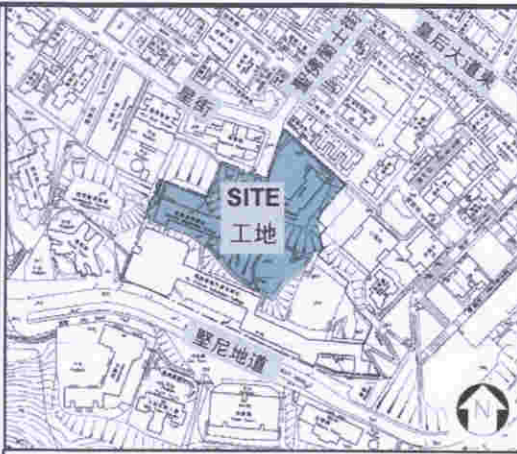
22. The proposed construction works will involve the felling of three existing trees. All trees to be removed are not important trees⁷. The school sponsor will incorporate a planting proposal, including an estimated quantity of nine trees, as part of the contract.

23. The school estimates that the proposed works will create about 95 jobs (85 for labourers and another 10 for professional/technical staff) providing a total employment of 1 650 man-months.

Education and Manpower Bureau
January 2007

⁷ "Important trees" refer to trees in the Register of Old and Valuable Trees, and any other trees which meet one or more of the following criteria –

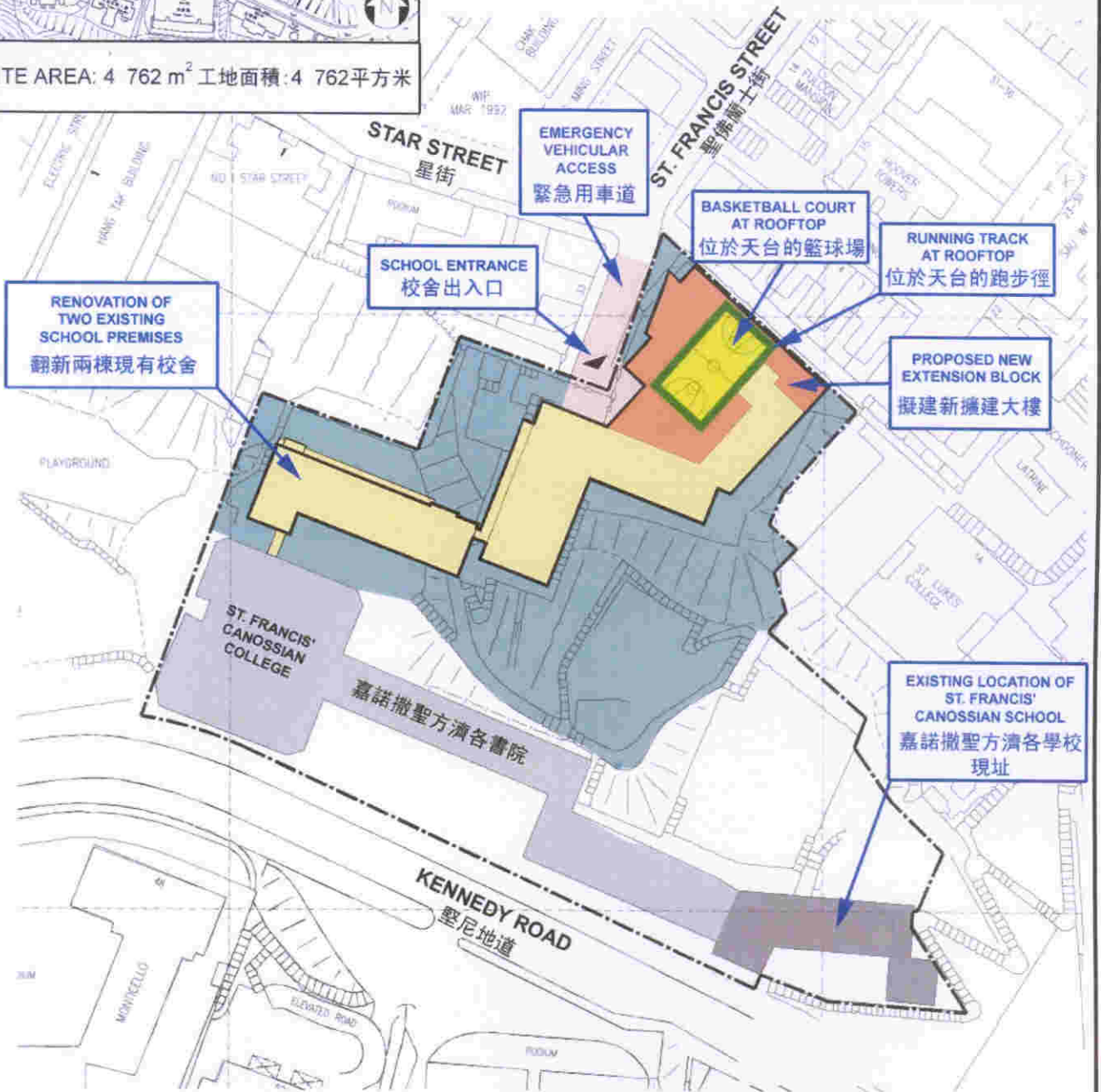
- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui trees, trees as landmark of monastery or heritage monument, and trees in memory of important persons or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal or exceeding 1.0 metre (measured at 1.3 metre above ground level), or with height/canopy spread equal or exceeding 25m.



SITE AREA: 4 762 m² 工地面積: 4 762平方米



LOCATION PLAN (1:1000)
位置圖



28EA - REPROVISIONING OF ST. FRANCIS' CANOSSIAN SCHOOL AT ST. FRANCIS STREET, WAN CHAI
在灣仔聖佛蘭士街重置嘉諾撒聖方濟各學校



從西北面望向新擴建大樓的構思圖
VIEW OF THE NEW EXTENSION BLOCK FROM NORTH-WESTERN DIRECTION (ARTIST'S IMPRESSION)



從西北面望向翻新後校舍的構思圖
VIEW OF THE RENOVATED BLOCK FROM NORTH-WESTERN DIRECTION (ARTIST'S IMPRESSION)

28EA - REPROVISIONING OF ST. FRANCIS' CANOSSIAN SCHOOL AT ST. FRANCIS STREET, WAN CHAI
在灣仔聖佛蘭士街重置嘉諾撒聖方濟各學校

**28EA – Reprovisioning of St. Francis’ Canossian School at St. Francis Street,
Wan Chai**

Breakdown of the estimate for consultants’ fees

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants’ staff cost					
(i) Contract administration ^(Note 2)	Professional	–	–	–	1.1
	Technical	–	–	–	0.5
(ii) Site supervision ^(Note 3)	Technical	41.6	14	1.6	1.2
				Sub-total	<hr/> 2.8 <hr/>
(b) Out-of-pocket expenses ^(Note 4)					
	Lithography and other direct expenses				0.4
				Sub-total	<hr/> 0.4 <hr/>
				Total	<hr/> 3.2 <hr/>

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants. (As at 1 January 2006, MPS point 14 = \$18,010 per month.)
2. The consultants’ staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction of **28EA**. The assignment will only be executed subject to Finance Committee’s approval to upgrade **28EA** to Category A.
3. The consultant’s staff cost for site supervision is based on the estimate prepared by the school sponsor. We will only know the actual man-months and actual costs for site supervision after completion of the works.

/4.

4. Out-of-pocket expenses are the actual costs incurred. The consultants are not entitled to any additional payment for overheads or profit in respect of these items.

**A comparison of the reference cost of
a 24-classroom primary school project
with the estimated cost of 28EA**

		\$ million (in Sept 2006 prices)		
		Reference Cost*	28EA	
(a)	Demolition	–	2.7	(See Note A)
(b)	Slope improvement	–	0.8	(See Note B)
(c)	Piling	8.3	5.1	(See Note C)
(d)	Building	43.7	46.9	(See Note D)
(e)	Building services	12.0	16.2	(See Note E)
(f)	Drainage	1.8	1.8	(See Note F)
(g)	External works	7.4	7.5	(See Note F)
(h)	Furniture and equipment (F&E)	–	3.2	(See Note G)
(i)	Consultants' fees	–	3.2	(See Note H)
(j)	Contingencies	7.3	8.7	
	Total	<u>80.5</u>	<u>96.1</u>	
(k)	Construction floor area (CFA)	<u>9 580 m²</u>	<u>10 057 m²</u>	
(l)	Construction unit cost {[(d)+(e)] ÷ (k)}	\$5,814/m ²	\$6,274/m ²	

/* Assumptions

* **Assumptions for reference cost**

1. The estimation is based on the assumption that the school site is uncomplicated without unusual environmental restrictions. No allowance is reserved for specific environmental restrictions such as the revision of insulated window, air-conditioning and boundary walls to mitigate noise impacts on the school.
2. No site formation works/geotechnical works are required as they are normally carried out by other Government department under a separate engineering vote before handing over the project site for school construction.
3. Piling cost is based on the use of 105 steel H-piles at an average depth of 30 metres, assuming that percussive piling is permissible. It also includes costs for pile caps, strap beams and testing. No allowance is reserved for the effect of negative skin friction due to fill on reclaimed land.
4. Cost for drainage and external works is for a 24-classroom primary school site area of 4 700 square metres built on an average level site without complicated geotechnical conditions, utility diversions, etc. (i.e. a “green-field” site).
5. No consultancy services are required.
6. F&E costs are excluded as they are usually borne by the sponsoring bodies of new schools.
7. The reference cost for comparison purpose is subject to review regularly. D Arch S will review, and revise if necessary, the reference cost which should be adopted for future projects.

Notes

- A. Additional cost is required for demolition of staircase of the to-be-vacated school premises with lease term expiring in August 2007. The demolition of the staircase is to make way for connection to the new extension block.
- B. Slope improvement works to the existing slope features is required to stabilize the existing slopes within the site.

- C. The piling /foundation cost is for the new extension block only. A combined foundation system of pre-bored H-pile, cast in-situ concrete pile and footings is adopted to suit the geotechnical and topographical conditions of the site. Socket H-pile foundation (non-percussive piling) is adopted in general to avoid substantial vibration to the existing masonry wall facing the existing service lane at northeast of the proposed extension block, which is marginally stable and unnecessary vibration to it should be avoided. Furthermore, sleeve steel casings are added specifically for those socket H-piles adjacent to the masonry wall in order to avoid additional lateral load acting on this wall. In-situ concrete pile foundation is adopted specifically for new foundation adjacent to the piles of the existing school premises. This is because the founding level of the in-situ concrete pile is about the same as that of existing caisson-pile foundation and therefore surcharge load induced from the existing caisson piles would not act on the new piles in the bedrock stratum.
- D. The building cost is considered comparable to similar school projects built by the Government.
- E. The building services cost is higher because of the provision of additional lift and vertical lifting platforms for the disabled and installation of sprinkler system in the assembly hall to meet the Fire Services Department's requirement.
- F. Drainage and external works cost are considered comparable to similar school projects built by the Government.
- G. The cost of F&E, estimated to be \$3.2 million, will be borne by the Government. This is in line with the current policy.
- H. Consultants' fees are required for contract administration, site supervision and out-of-pocket expenses.